



Premium Graphite for a Clean Energy Future

The right product: ideal for EVs | **The right time:** supply deficit from 2023 | **The right cost base:** forecast ROI of 32%

Investor Presentation | November 2022

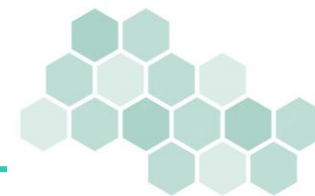


BLACKEARTH

Specialising in Critical Commodities

ASX: BEM

Forward Looking Statements



Certain statements contained in this presentation, including information as to the future financial or operating performance of BlackEarth Minerals NL (“the Company”) and its projects, are forward-looking statements. Such forward-looking statements are necessarily based on a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies, involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements, and may include, among other things, statements regarding targets, estimates and assumptions in respect of commodity prices, operating costs and results, capital expenditures, ore reserves and mineral resources and anticipated grades and recovery rates and are, or may be, based on assumptions and estimates related to future technical, economic, market, political, social and other conditions. The Company disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words ‘believe’, ‘expect’, ‘anticipate’, ‘indicate’, ‘contemplate’, ‘target’, ‘plan’, ‘intends’, ‘continue’, ‘budget’, ‘estimate’, ‘may’, ‘will’, ‘schedule’ and other, similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and, accordingly, investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein. Many known and unknown factors could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements. Such factors include, but are not limited to: competition; mineral prices; ability to meet additional funding requirements; exploration, development and operating risks; uninsurable risks; uncertainties inherent in ore reserve and resource estimates; dependence on third-party smelting facilities; factors associated with foreign operations and related regulatory risks; environmental regulation and liability; currency risks; effects of inflation on results of operations; factors relating to title to properties; native title and Aboriginal heritage issues; dependence on key personnel, and share-price volatility. They also include unanticipated and unusual events, many of which it is beyond the Company’s ability to control or predict. Photographs in this presentation may not depict assets of the Company.

Some of the information contained in this presentation has been derived from previously released information to the ASX refer: 30/1/2019 -“Positive Definitive Feasibility Study Results”; 30/1/2019-“BEM Progressing to full feasibility”; 17/1/2021- “Significant increase in Graphite inventory at Maniry”.

COMPETENT PERSONS STATEMENT

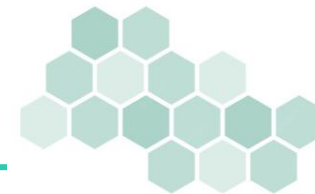
Mineral Resource – Razafy and Razafy NorthWest





The information in this Report that relates to in situ Mineral Resources for Razafy and Razafy NW was prepared, and fairly reflects information compiled, by Mr Grant Louw and Dr Andrew Scogings, each of whom have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves” (the JORC Code). Mr Louw is an employee of Snowden Optiro and is a Member of both the Australian Institute of Geoscientists and the Geological Society of South Africa. Dr Scogings is an employee of Snowden Optiro, a Member of the Australian Institute of Geoscientists and the Geological Society of South Africa and is a Registered Professional Geoscientist (RP Geo. Industrial Minerals). Mr Louw and Dr Scogings consent to the inclusion of information in the Mineral Resource report that is attributable to each of them, and to the inclusion of the information in the release in the form and context in which they appear.

Mineral Resource – Haja

The information contained in this report that relates to the Haja Mineral Resource is based on information compiled by Ms. Annick Manfrino, Principal of Sigma Blue and previously Manager Geology of BlackEarth Minerals. Ms. Manfrino is a member of The Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.” Ms. Manfrino completed a site inspection and is the Competent Person for this Resource estimation. Ms. Manfrino consents to the use of the information included in this document in the form and context in which it appears.

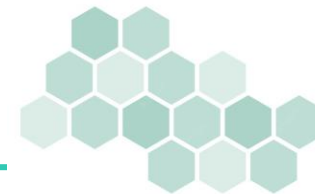
BlackEarth – Snapshot of Key DFS Highlights



Maniry NPV US\$263m pre tax US\$205m post tax 	Consolidated Project(s) NPV US\$313m pre tax US\$243m post tax <i>Combined Maniry & Metachem (1) pre -tax and post - tax valuations</i> 	Maniry Payback Period 3.8 Yrs <i>Maniry payback (after-tax) from first ore</i> 
Maniry Internal Rate of Return (IRR) 33% pre tax 29% post tax 	Maniry Life of Mine 21 Years with expansion options 	Maniry Life of Mine Revenue US\$1,638m Gross Revenue US\$ 857m EBITDA 

(1) Based on BEM 50% ownership interest – see ASX Release 21/7/2022

DFS to Underpin Maniry Graphite Project Development



- BlackEarth owns 100% of the **Maniry Graphite Project in Madagascar**: First production set for Dec Q, 2024
- **DFS shows Maniry set to generate strong financial returns** (32% pre-tax ROI, 3.8-year payback) ⁽¹⁾
- Investment in Stage 1 CAPEX provides for increased initial production **and higher production LOM volumes**
- Higher Production = Massive LOM Project Revenue of US\$1,638m
- **Maniry Pre Tax NPV = US\$263m or A\$400m** ⁽²⁾
- **Group Pre Tax NPV = US\$313m or A\$481m** ⁽³⁾
- **Maniry Operating Margin projected to be US\$790/ mt** with potential upside from projected short term graphite supply shortages and price increases
- **Offtake** negotiations underway for all Maniry products including supply to the **EV market**

Financial Metric	Unit	DFS Result ⁽¹⁾
Project Life	(Yrs)	21
CAPEX Stage 1 ⁽¹⁾ (incl contingency)	(US\$ M, real)	79.2
CAPEX Stage 2 (incl contingency)	(US\$ M, real)	24.6
Average Sales Price (LOM) ⁽²⁾	(US\$/t)	1,448
Average OPEX (LOM) - C1 (FOB)	(US\$/t)	658
Stage 1 Production of Concentrate ⁽⁴⁾	(t / pa)	39,000
Stage 2 Production of Concentrate (from yr4) ⁽⁴⁾	(t / pa)	56,400
IRR - before tax	(%, real)	33%
NPV - before tax	(US\$ M, real)	263
NPV - after tax	(US\$ M, real)	205
Payback Period	(Yrs)	3.8

Maniry DFS – Upgraded investment in Stage 1 CAPEX

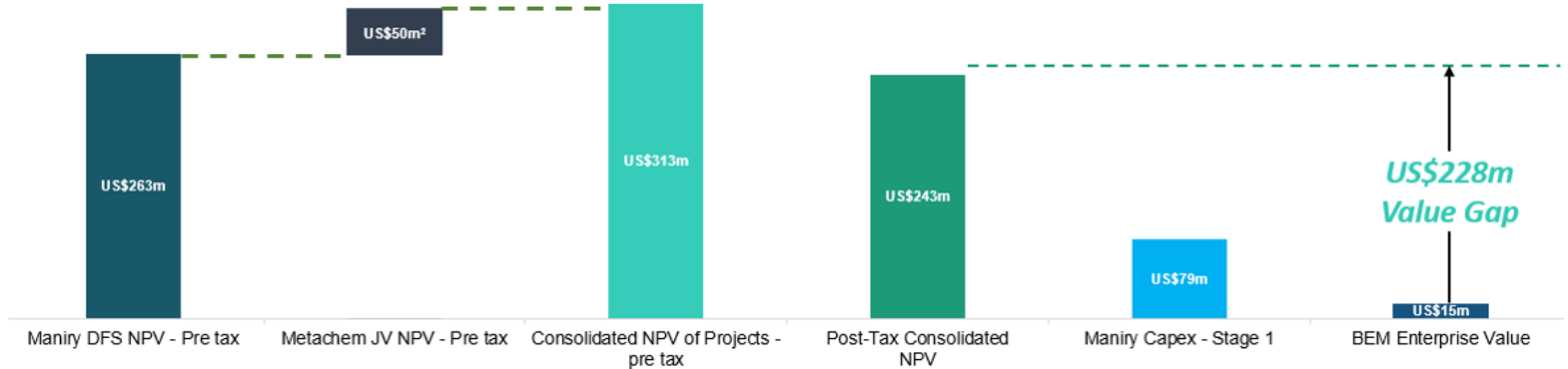


- BlackEarth has committed to an increase in Stage 1 CAPEX – total investment now US\$73.3m cost (excluding contingency)
- **Benefits of the increased Stage 1 CAPEX investment provide for –**
 - Additional 27,000 mt of concentrate produced in Stage 1 earning an extra US\$39m in gross revenue;
 - Removes the need for additional cost in Stage 2 upgrade with Stage 2 costs now actually reduced;
 - Investment at Stage 1 contributes to a faster Stage 2 upgrade with production to increase by an average of 13% pa or US\$9.2m pa in Gross Revenue
- Investment in Stage 1 CAPEX provides for increased initial production **and higher production LOM volumes**
- Additional Stage 1 CAPEX Costs include –
 - Processing Plant- US\$18.0m
 - Inflationary Impact (from Scoping Study) – US\$5.0m
 - Additional Freight Costs – US\$4.0m
 - Other Infrastructure – US\$4.0m
 - Project Construction – US\$4.0m



Significant NPV Valuation & Value Proposition

Combined Project Valuation Breakdown vs BlackEarth Combined Capex and Enterprise Value (EV)



2022¹ Definitive Feasibility Study confirmed:



Significant Global Graphite Resource to produce over 1,200,000 tonnes of concentrate over current Maniry mine life



Potential for Revenue Growth - Analysts expecting a massive supply shortage in the short term to meet EV demand



DFS OPEX confirmed a Gross Margin of 54% of Revenue

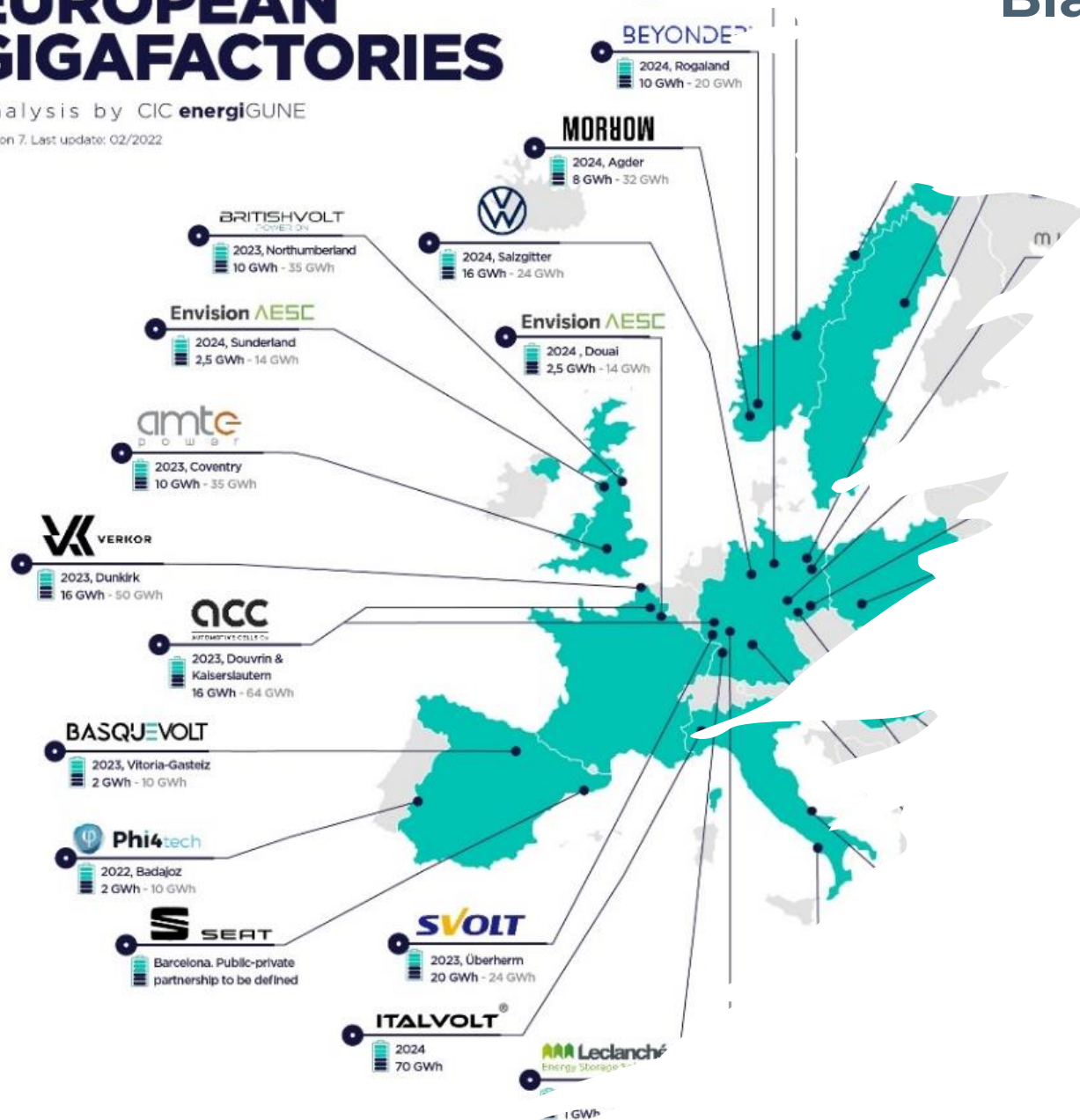


Stage 1 CAPEX investment reflects a significant increase in Stage 1 graphite production

EUROPEAN GIGAFACTORIES

Analysis by CIC energiGUNE

Version 7. Last update: 02/2022

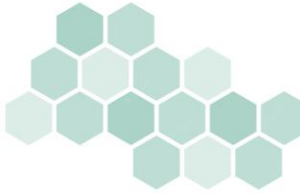


BlackEarth – A Global Graphite Group

Growth and Value Opportunities

- **Developing the Maniry Graphite Project**
 - A globally significant resource to produce over 1.2 million tonne of product over its current mine life
 - Madagascar – positioned to be the world's largest exporter by 2023 behind China
- **Product tested and rated as highly suitable for traditional uses and the Electric Vehicle ("EV") - lithium-ion battery market**
 - Previous testing undertaken by tier 1 end-users and consultants
- Plan developed for the use of our Graphite Concentrate with large supply expected to be made to the **EV and Alternative Energy development market**
- **Expandable Graphite JV Operations – infrastructure being developed**
 - Site secured and construction plans being finalised
 - Plan to commence commissioning Q1 2023 with all product pre sold under binding offtake to leading European Group
- **Scoping Study in progress to develop a Battery Anode Material plant in Europe**
 - Wave International and Dorfner ANZAPLAN commissioned to complete Study in November 2022
- **Corporate Advisors working to develop Project funding plan**

Applications for Maniry Graphite – key markets in place



Graphite from BlackEarth's Maniry project meets the specifications required for applications in the expandables, refractory and lithium-ion battery industries.



Expandables

- ▶ **Previously achieved positive test results** and quality approval from largest expandable graphite producer in the world
- ▶ **JV in place with Metachem India to produce Expandable Graphite** – Operational centre in development phase with commissioning planned to commence early 2023



Refractory

- ▶ **Successful testing indicates** that our product is highly suitable in the use of high-end refractory products
- ▶ MOU in place with RHI Magnesita ("RHIM") to potentially supply product to any of their global operations.



Li-Batteries

- ▶ **Maniry meets all specifications required by lithium-ion anode material manufacturers**, based on independent lab tests and Tier 1 end-user results
- ▶ **Scoping Study underway to develop a Battery Anode Material Manufacturing Plant in Europe** – significant JV interest

Short Term Actions – News Flow



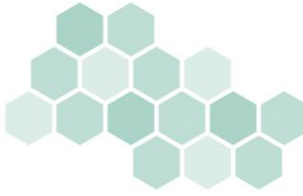
- **Scoping Study** results for Battery Anode Material Plant – to be developed in Europe
- **Offtake Agreements** confirmed for Maniry Concentrate
- **Completion of Maniry Project ESIA** to align with Equator Principles
- Maniry **Project Financing**
- **Complete final Licencing and Permits** and
- Complete Development and **Commence Production** at our JV Expandable Graphite Facility in India



“BlackEarth is excited about its near term opportunities to drive shareholder value”

Managing Director, Tom Revy

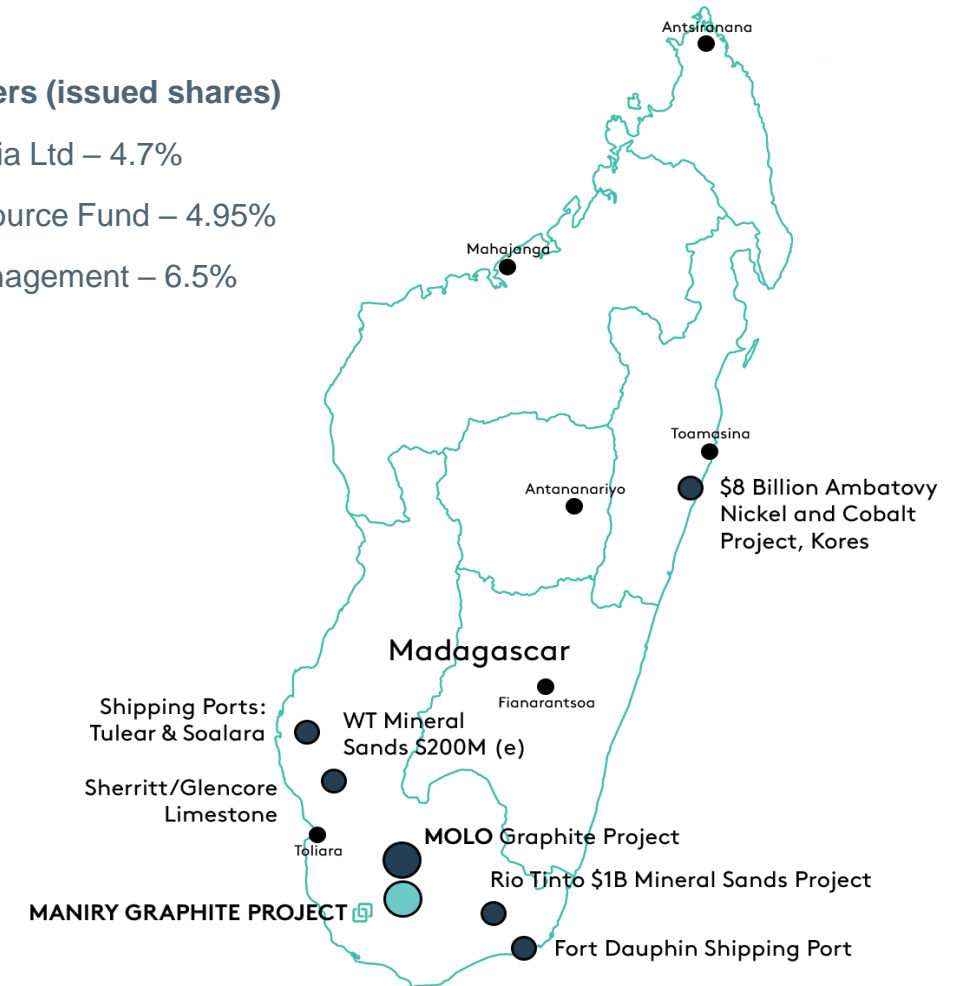
Capital Structure



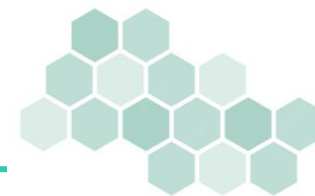
Share Price (31 October 2022)	10 cents
Shares on issue	279m
Options and Performance Rights	34.6m
Market Capitalisation (undiluted) @ 10 cents	A\$28m
Cash at 30 September 2022	A\$4.0m
Debt at 30 September 2022	Nil

Major Shareholders (issued shares)

- Lithium Australia Ltd – 4.7%
- Canadian Resource Fund – 4.95%
- Board and Management – 6.5%
- Top 20 – 35%

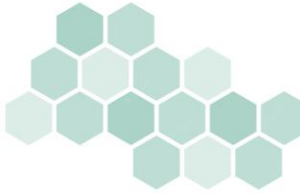


Board & Management



George Bauk Non Executive Chairman	<ul style="list-style-type: none"> •Over 30 years' experience in the resources industry including 14 years' experience as a listed resources company director •Has held global operational and corporate roles with WMC Resources and Western Metals, and most recently was MD of Northern Minerals
Tom Revy Managing Director	<ul style="list-style-type: none"> •Qualified metallurgist with extensive experience in project development and EPCM services •More than 30 years' experience within the resources industry •Held senior operational and corporate positions at GRD Minproc, WorleyParsons, Ferrum Crescent and Empire Resources
David Round Finance Director	<ul style="list-style-type: none"> •Extensive M&A, Offtake execution, Joint Venture Development experience •Was recently CFO and Head of Sales of an Australian listed Graphite production company with mine operations in Madagascar •Board and Operational experience with listed mining companies in Australia and Overseas
Heather Zampatti Non Executive Director	<ul style="list-style-type: none"> •Head of Wealth Management at Bell Potter Securities and has over 35 years in Stockbroking, Finance, Investment policy, strategy and funds management •Extensive board experience including on the Federal Government Remuneration Tribunal and Takeovers Panel ,the Australian Institute of Management (WA), and ASIC Financial Services Consultative Committee.
Jean Luc Marquetoux Country Manager, Madagascar	<ul style="list-style-type: none"> •Over 20 years of extensive experience in business administration and project management in Madagascar •Since 2018 he has held the position as Chairman of the Chamber of Mines of Madagascar
Mick Ryan Project Manager	<ul style="list-style-type: none"> •Over 40 years' experience in the mining industry on operational, project management and consulting metallurgist roles in various commodities and international locations. •Has held project management roles in nickel, niobium, and gold studies for Australian and African Projects.

World Graphite Market – Outlook



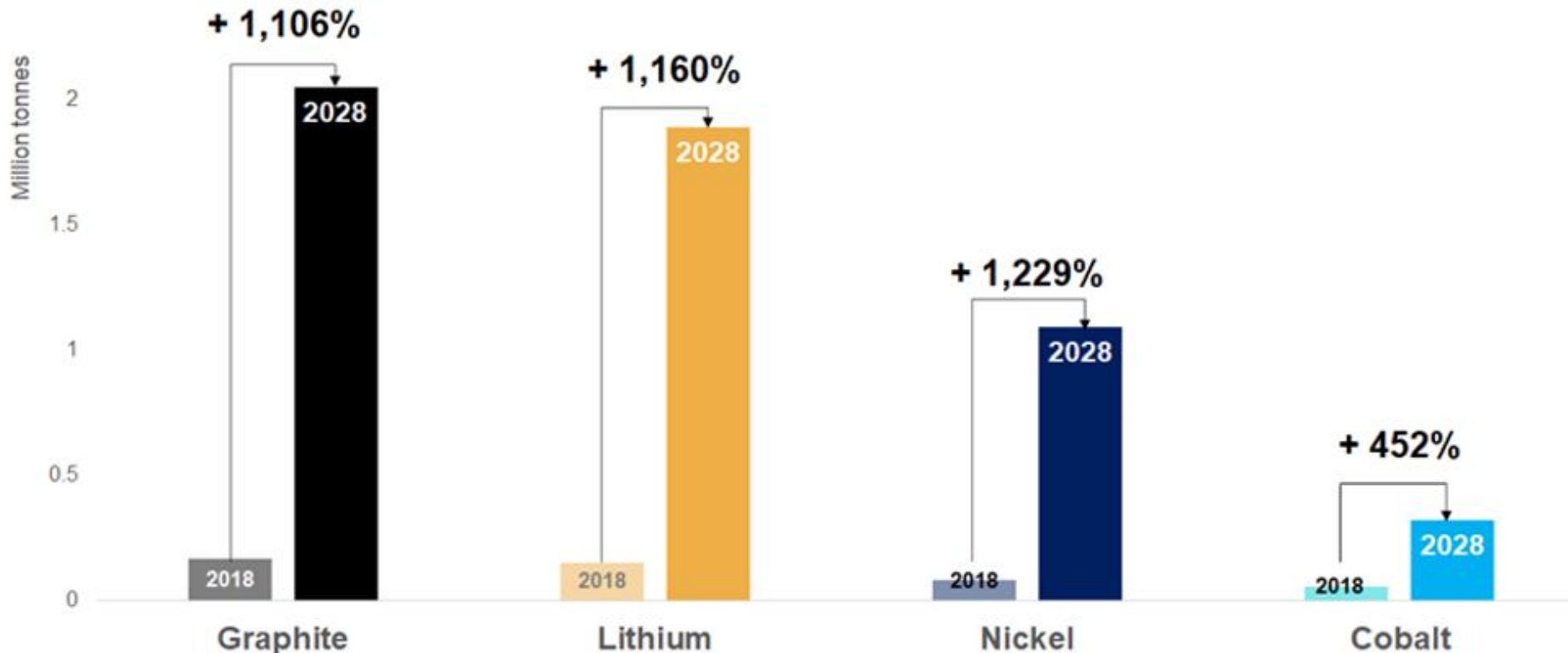
- Benchmark Mineral Intelligence forecasts a global shortage of 6.1M tonnes of natural graphite by 2035
- Benchmark estimates >90 new mines, each producing 56,000tpa, required to meet projected demand by 2035
- Madagascar continues to lead the development of new mines and growth



Markets: Graphite needed in Li-ion Batteries



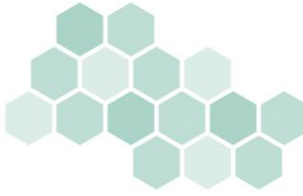
Demand Growth for Critical Battery Raw Materials from LiB



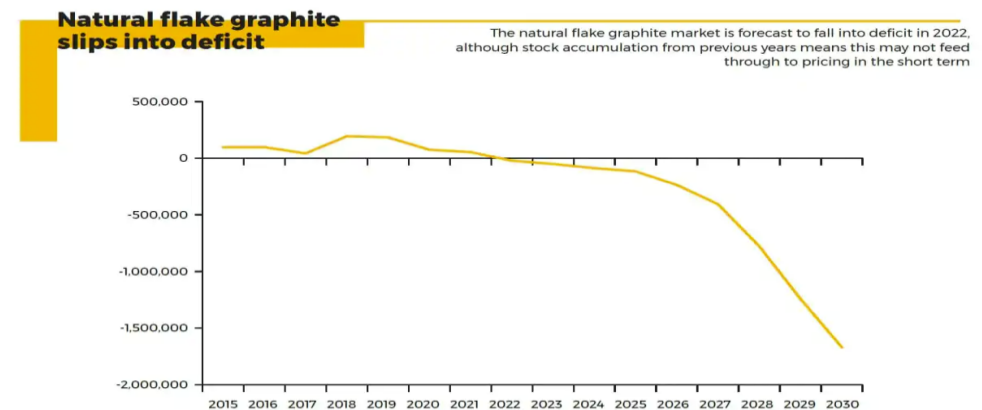
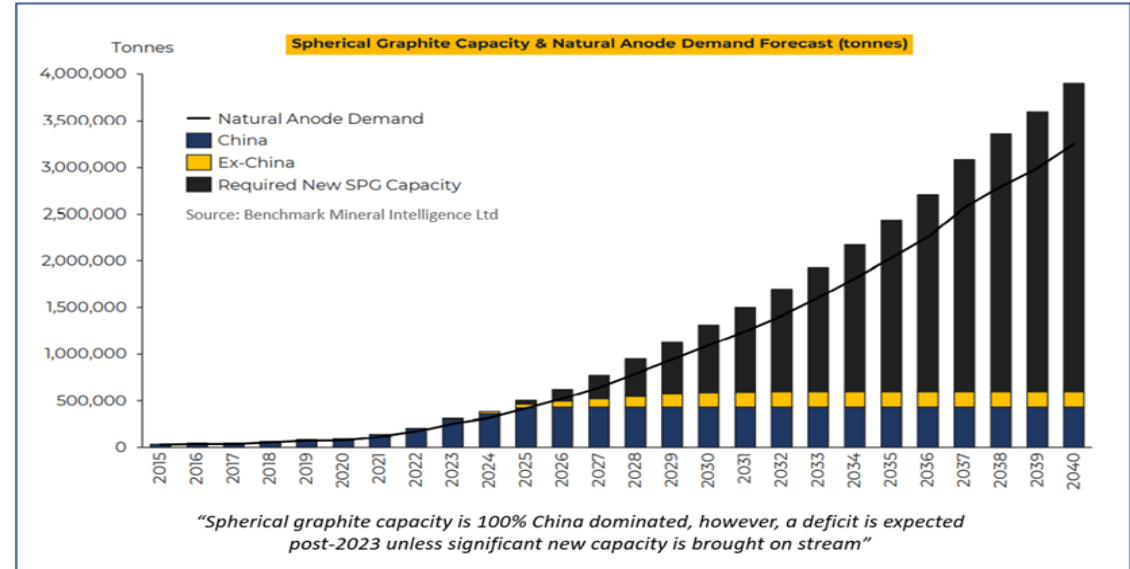
Source: Syrah Resources analysis, data from Benchmark Minerals/Visual Capitalist (2019)

- Graphite is the most significant material in a battery anode
- More graphite required in Li-ion batteries to fuel the demand of EVs
- Li-ion batteries contain significantly more graphite than lithium
- Graphite looms as the mineral of greatest supply shortage in the manufacture of EV batteries
- Demand and supply shortfalls should force prices to rise

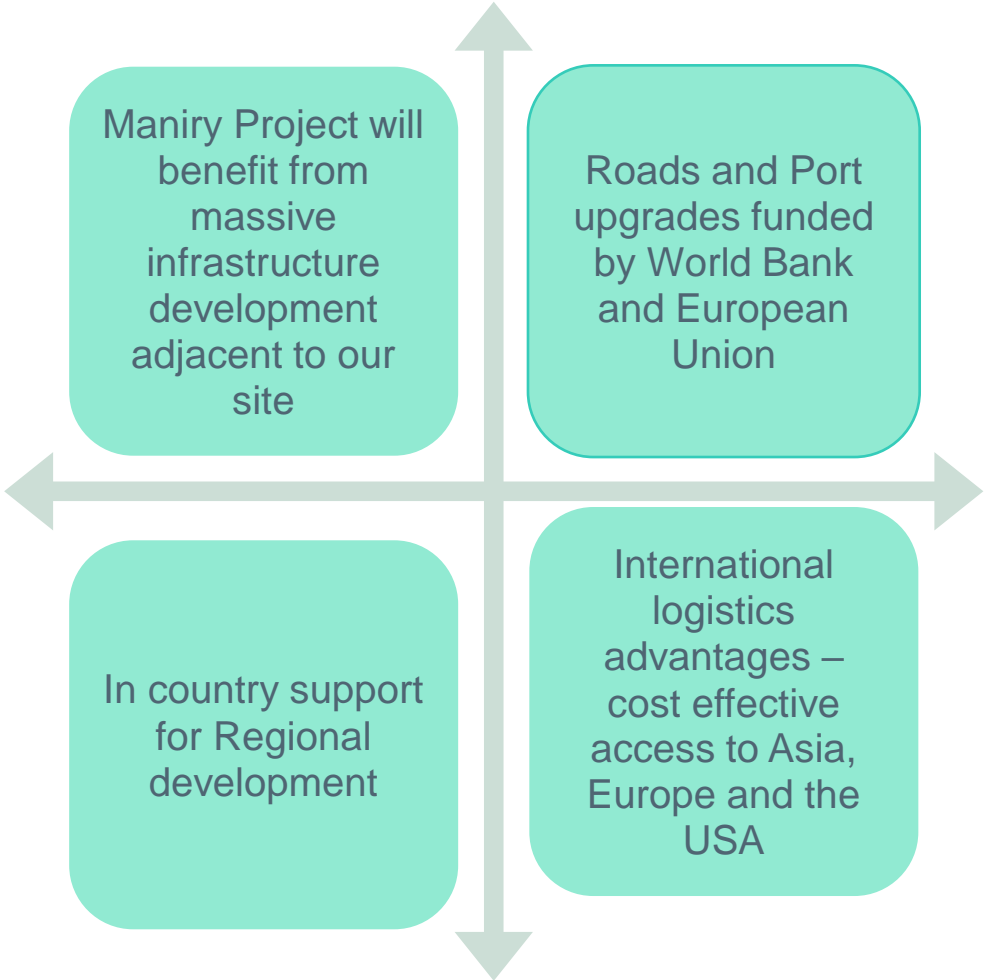
Markets: Massive shortfall forecast



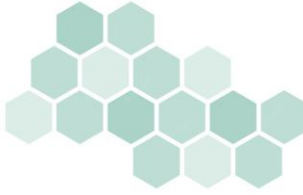
- Demand driven by massive growth in EV sales
- Expectation that graphite supply will fall into deficit in 2022/23 with demand rate increasing
- Natural graphite is a much more cost-effective and greener alternative to synthetic products for use in anodes
- Growth in demand for non-EV graphite use being fueled by other applications – graphite foils, expandable graphite (fire retardant and electronics)



Maniry Project Location & Benefits



Maniry Project - A globally-significant source of a Critical Mineral



- **Total Maniry Resource** of 40mt @ 6.5% TGC¹
- Defined JORC Compliant **Reserve** of 16.2mt @6.58%²
- DFS mine schedule provides for production of over **1.2m tonnes of graphite over the Life of Mine (LOM)** with enormous expansion potential²
- **Massive defined Exploration Target of 260 – 380mt** (6-8% TGC) (2) – this creates an enormous opportunity to extend the LOM significantly and increase production volumes and grade



Port of Toliara



Maniry location – close to existing Infrastructure and to benefit from massive World Bank fund development in the Region

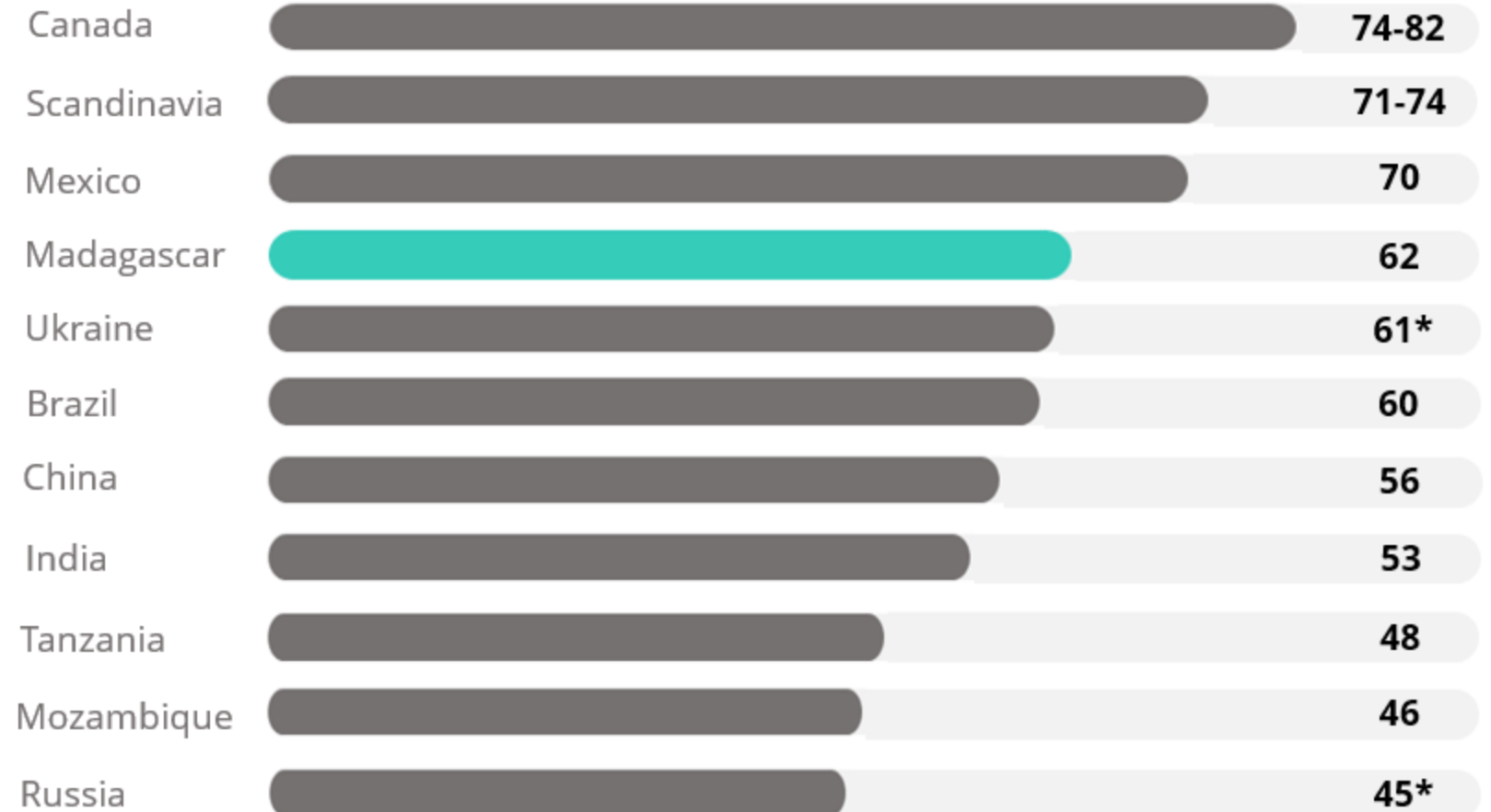
Madagascar – Preferred Mining Environment



MADAGASCAR KEY POINTS

- ▶ +100 years graphite production history
- ▶ Largest supplier of graphite into China
- ▶ Second largest supplier of graphite into India
- ▶ Top 5 supplier of graphite into the USA
- ▶ Attractive fiscal regime including no “free-carried” interests

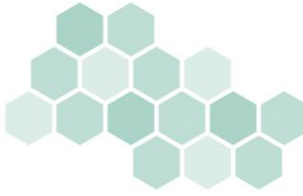
INVESTMENT RISK INDEX FOR GRAPHITE PRODUCING COUNTRIES¹



1. Source: MJ World Risk Report 2021

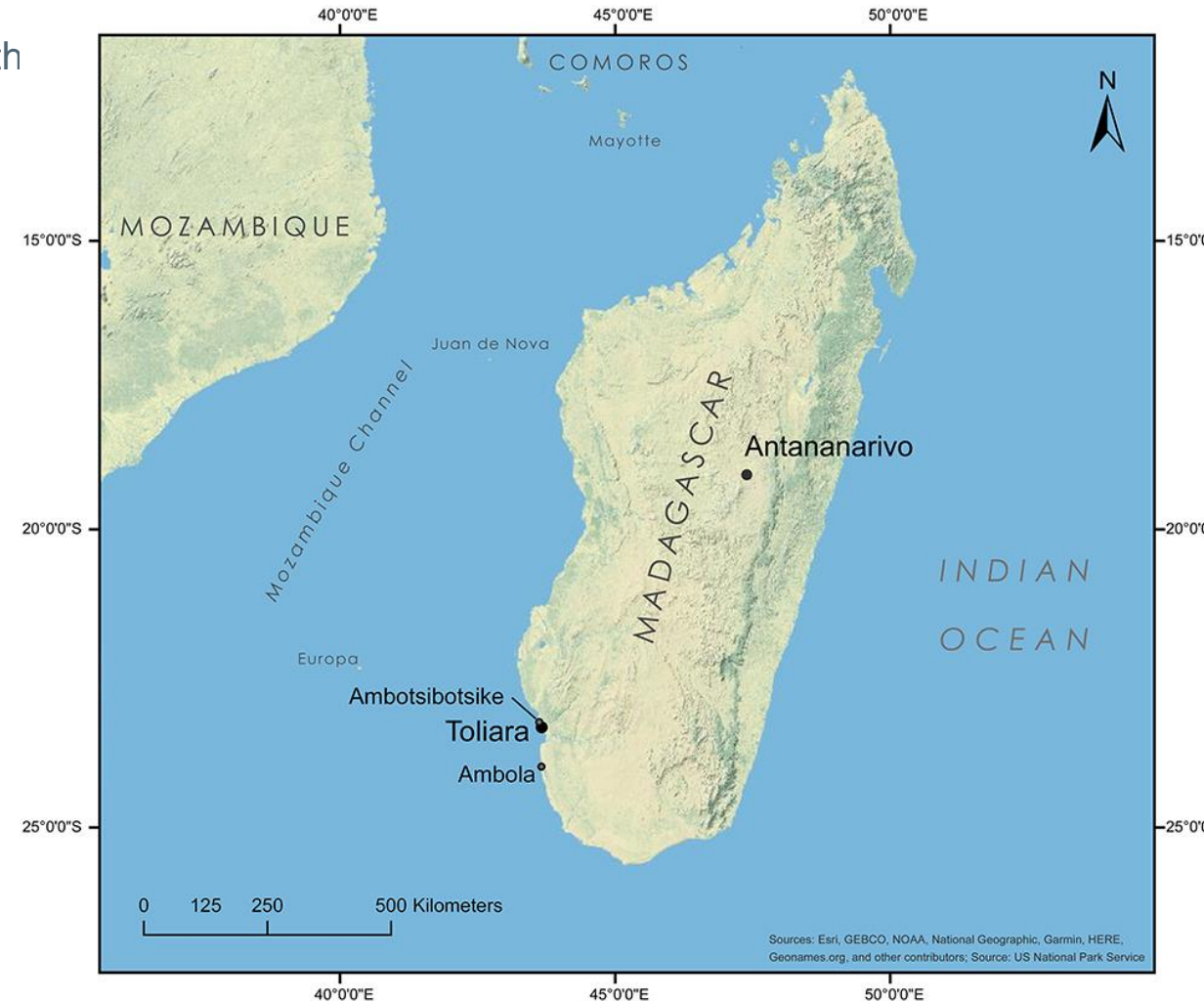
* Pre- Russia / Ukraine war

Madagascar's Economy & Mining Focus

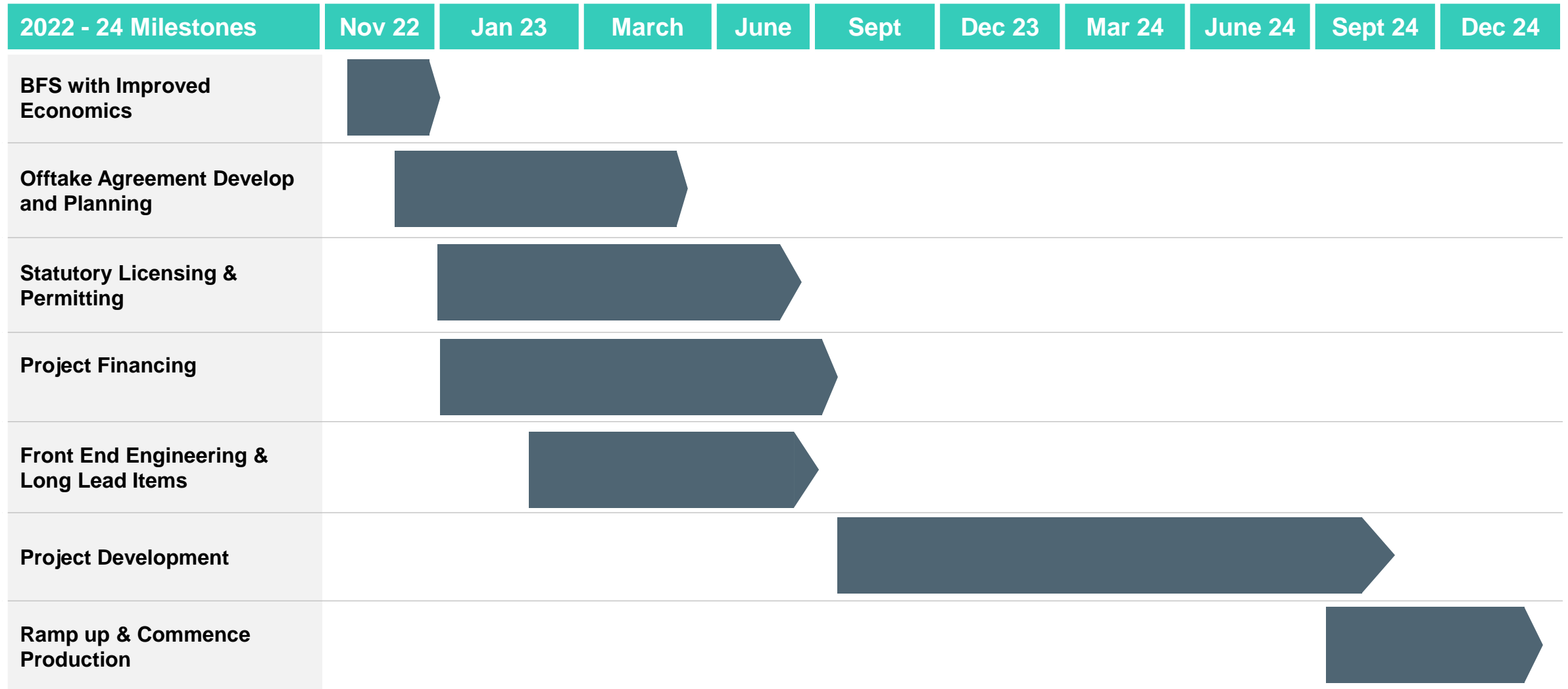
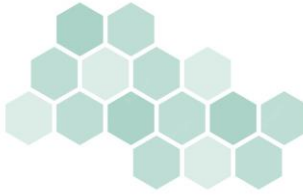


- **Extensive mine development success in-country:**
 - Ambatovy Nickel - Massive nickel mining operation in the north
 - Rio Tinto – Globally-significant ilmenite project in the south
- **Graphite production experiencing massive growth:**
 - NextSource Materials – Canadian-listed, funded from the UK
 - Tirupati Graphite Plc – Listed on LSE
 - Etablissements Gallois S.A. – largest in-country producer, with significant exports to USA and Europe
 - Total graphite exports estimated to exceed 300,000t in 2023
- **Agriculture**, including fishing and forestry, is a mainstay of the economy, accounting for more than 25% of GDP
- **Madagascar produces** around 80% of the world's vanilla and is largely reliant on this commodity for most of its foreign exchange
- **Export partners:** United States 19%, France 18%, United Arab Emirates 7%, China 6%, Japan 6%, Germany 5%, India 5% (2019)

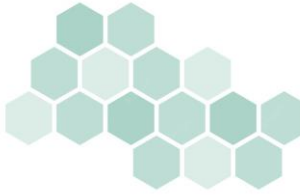
**Information largely sourced from CIA World Fact Book*



Maniry Project – Pathway to Production



Environmental, Social and Governance Our Commitment and Development



 Digbee ESG™



ENVIRONMENTAL

- ✓ Commitment to minimising carbon footprint
- ✓ ESIA being conducted in accordance with Equator Principles / World Bank Standards
- ✓ Project water requirements will not impact local villages (Golder)
- ✓ Solar to provide 35% of Project's energy needs on start up



SOCIAL

- ✓ Investing in our future leaders - Malagasy team trained in Australia over past 24 months
- ✓ Significant expenditure in local education, health and food supplies
- ✓ Ongoing commitment to engage and train local workforce
- ✓ 98% of workforce to be locally sourced



GOVERNANCE

- ✓ Leading ASX listed Graphite focused Company – regular stakeholder updates
- ✓ **ESG performance assessed by leading Consulting Group – Digbee ESG (UK)**
- ✓ Committed “Women in leadership” Policy implemented for global operations

Indian JV Operations – Production of Expandable Graphite

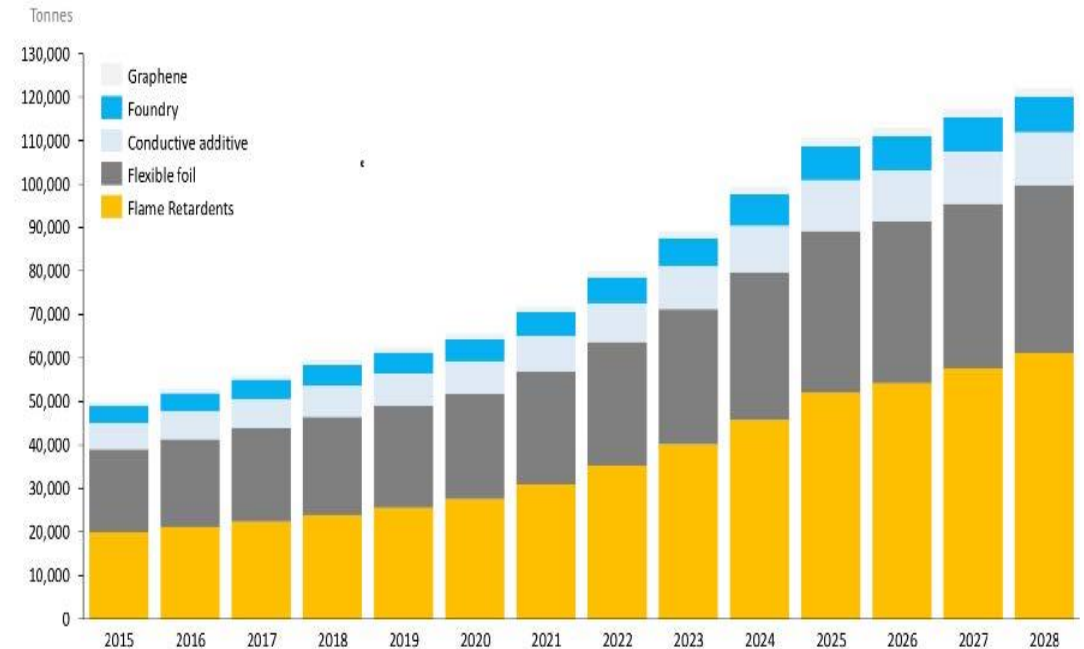


- **Feasibility Study** concluded, with key outcomes including (50/50 JV basis)¹:
 - NPV (post-tax): US\$78M
 - Net Cash flow (pre-tax): US\$219M
 - Payback Period (post-tax): 1.2 years
 - Project CAPEX: US\$3M (Stage 1)
- Site secured in the Special Economic Zone in Pune, India with settlement in place
- Leading local Engineering Firm Shubhdyot Consulting Engineers Pvt Ltd appointed to manage the development.
- Site development commencing in Q4 2022, with planned commissioning, early 2023 and trial processing to be undertaken immediately thereafter.
- Plan to commence full production of Expandable Graphite in Q2, 2023
- Binding offtake agreement in place to sell all initial production to global graphite downstream processing leaders, Grafitbergbau

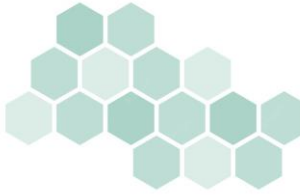
(1) – ASX Announcement 27 July 2022



Expandable graphite demand forecast, 2015-2028



Battery Anode Material Plant Scoping Study



- **Scoping Study** underway with completion and publication due in the near term.
- Prepared and led by Independent Experts – **Wave International** with support from leading German based testing group, **Dorfner Anzaplan**.
- **An Executive from BlackEarth** recently visited a proposed site in Europe with meetings held with development and funding partners.



- Small and Fine flake product will directly feed from Maniry to the proposed plant
- Scoping Study being designed **to produce 15,000 – 20,000 tonne pa** of battery anode material to feed the development of Lithium-ion batteries



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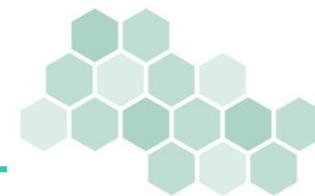
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Appendix



Reference 1 - The Project updated **Company Mineral Resource Inventory** is reported as follows -

Area	Classification	Tonnes (Mt)	Total Graphitic Carbon (%TGC)	Contained Graphite (tonnes)
Razafy*	Indicated	13.6Mt	6.5%	890,000
	Inferred	12.1Mt	5.9%	720,000
Razafy NW*	Indicated	3.1Mt	8.6%	266,000
	Inferred	2.2Mt	8.5%	186,000
Haja**	Indicated	-	-	-
	Inferred	9.0Mt	5.8%	522,000
TOTAL	Indicated	16.7Mt	6.9%	1,156,000
	Inferred	23.3Mt	6.1%	1,428,000

*3% TGC cut-off grade

**5% TGC cut-off grade

Reported at the cut off grades above; figures in the table above have been rounded, reported to the appropriate significant figures with graphite tonnages rounded to the nearest thousand, in accordance with the 2012 JORC Code

Reference 2 -

Cautionary Statement:

The Exploration Targets reported herein are not JORC compliant Mineral Resources. The potential quantity and grade of the Exploration Targets are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource and there is no certainty that further exploration work will result in the determination of a Mineral Resource. See ASX announcement date 14 August 2018

Competent Persons Statement

Ore Reserve – Razafy & Razafy NorthWest

The reported Ore Reserves have been prepared under the supervised and managed of Mr Michael Ryan. Mr Ryan is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to BlackEarth Minerals NL as Project Manager for the Maniry Graphite Project. He has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as a Competent Person as defined in the 'Australasian Code for Reporting of Mineral Resources and Ore Reserves' of December 2012 ("JORC Code") as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, the Australian Institute of Geoscientists and the Minerals Council of Australia. Mr Ryan gives BlackEarth Minerals NL consent to use this reserve estimate in reports. Mr Ryan holds a beneficial interest in shares in the company through a superannuation fund.